

Notice of Allowability

Application No.

10/811,918

Examiner

Rodney H. Bonck

Applicant(s)

ONO ET AL.

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3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment received September 5, 2006.
2. ☒ The allowed claim(s) is/are 1-18.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

The following action is in response to the amendment received September 5, 2006.

Allowable Subject Matter

Claims 1-18 are allowed. Claims 1-5, 12, 6, 7, 9, 8, 13-16, 10, 11, 17 and 18 will be renumbered for printing as claims 1-18, respectively.

Reasons for Allowance

The following is an examiner's statement of reasons for allowance:

The prior art of record fails to show or render obvious a hydrodynamic torque converter as defined in claim 1 wherein the support portion of the piston has a flat surface axially contacting the turbine and a cylindrical portion extending axially from an innermost peripheral edge of the piston, wherein an elastic coupling mechanism is arranged at an outer peripheral portion of the turbine and the piston to couple the turbine and the piston, and wherein the turbine hub and the front cover respectively include opposing portions mutually opposed to each other across a space in an axial direction and the opposing portions are configured to maintain a gap in the axial direction therebetween to prevent a load from the turbine being applied to the front cover when the piston moves to a position closest to the front cover.

The closest prior art is believed to be Wack et al.(US 2002/0175037 A1) that shows a gap maintained but has the elastic coupling mechanism at the mid portion of

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the piston and has a piston inner periphery configured differently than that claimed.

Also pertinent is the Hinkel('195) patent. The embodiment of Fig. 3 of Hinkel shows a piston configured but the presence of bearing 42 (Fig. 1) precludes maintaining gap, as called for in claim 1. For the reasons set forth in applicants' remarks of the response filed September 5, 2006, it would not have been obvious to combine the Wack et al. and Hinkel disclosures to arrive at the claimed invention; and in particular, it would not have been obvious to move the elastic coupling mechanism in Wack et al. to the outer periphery of the piston.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Amendment

As indicated above, claim 1 is considered to distinguish over the art of record and particularly over the Wack et al. and Hinkel documents previously applied. Accordingly, the rejections under 35 USC 103(a) based on Wack et al. or Wack et al. in view of Hinkel are withdrawn.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ebinger et al.('879), Meisner et al.('272), and Sasse et al.(US

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2001/0020563 A1) are cited for their showing of torque converter clutches wherein a gap is maintained between the turbine hub and the cover. In Ebinger et al. and Meisner et al. the elastic coupling mechanism is not at the outer periphery of the piston, and the piston of the Sasse et al. device lacks the support portion configured as claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney H. Bonck whose telephone number is (571) 272-7089. The examiner can normally be reached on Monday-Friday 7:00AM - 3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney H. Bonck
Primary Examiner
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rhb
September 29, 2006